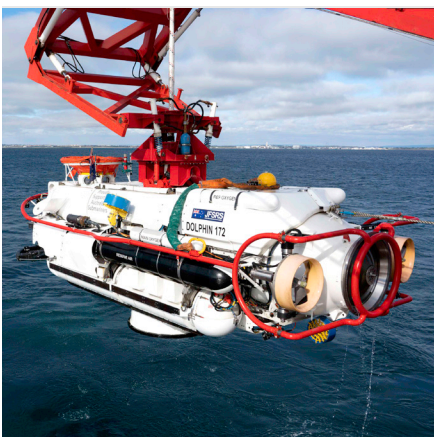


Divulged

Winter 2018

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JFD and the Royal Australian Navy successfully complete landmark submarine rescue exercise

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Successful hyperbaric reception trials

JFD perform successful mating trials with its portable hyperbaric reception facility for Boskalis



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Milestone achievements for Indian Navy Submarine Rescue contract

JFD has successfully completed the sea trials for the Deep Search & Rescue Vehicle and air transportation trials as part of the Submarine Rescue Capability contract with the Indian Navy



Black Carillon

Outstanding success in Australian submarine rescue tests

Australian submarine crews are safer than ever before after two weeks of rigorous but extremely successful exercises off the coast of Western Australia.

In at times challenging weather conditions, JFD partnered with the Royal Australian Navy (RAN) to conduct the annual “Black Carillon” exercise which tests Australia’s submarine rescue system in a series of scenarios designed to replicate a real-life submarine rescue emergency.

Importantly, the exercises demonstrate the world-class capability of the fully-integrated system that JFD provides to the Australian Government which includes a submarine rescue vehicle (a “mini” submarine with pilot and crew), a transfer-under-pressure chamber and a hyperbaric equipment suite to ensure that submariners receive the best possible medical treatment once they are back on the water’s surface.

A major element in testing the rescue suite this year was a continuously run ‘Rescue Exercise’, which aimed to test the complete system from the submersible through the hydraulics bellows into the transfer under pressure (TUP) chamber where any initial triage of patients could be undertaken. They then move to the new recompression chambers for simulated treatment depending on the symptoms being exhibited. The exercise, which commenced at early light at 0530 on 19 November and finalised at 1508 the 20 November, involved the launch and recovery of the submersible as in a real DISSUB scenario and necessitated the split manning of all control points of the suite to cover 24 hour operations. JFD worked seamlessly with the RAN medics and doctors to achieve all exercise objectives.



JFD Australia managing director, Toff Idrus (a former submariner):

“This was the first Black Carillon where we have tested the entire rescue system which also now includes the new hyperbaric equipment suite and the first time we have deployed to sea three times in one year, so there were some big milestones to achieve and I am delighted to say, we achieved each and every one of our goals.”

The RAN also commended JFD on a safe and highly successful Black Carillon:

“I was exceptionally impressed with what you achieved in the exercise and it was clearly evident that you had developed a strong sense of teamwork,” said Captain Geoff Wadley RAN, Commander Submarine Force.

“Speaking to international observers, they were unanimous in their praise for the exercise and the value they all got out of it, a job exceptionally well done.”

This year, JFD was able to conduct a series of simulated rescues in varying depths of water to demonstrate the flexibility and unrivalled range of its submarine rescue system.

“In each stage of Black Carillon, it was important to demonstrate that our free-swimming rescue vehicle and surface treatment systems could function no matter what the conditions,” said Mr. Idrus. “It’s why JFD is the world’s triple-0 number for rescues anywhere in the world.”





Successful hyperbaric mating trials drive improved safety at sea

JFD successfully completed mating trials with their Lloyd's classed portable Hyperbaric Rescue Facility (HRF) with Boskalis DSV BOKA Atlantis. The mating trials with the HRF and two Self-propelled Hyperbaric Lifeboats (SPHLs) were completed, as planned, in a period of 11 hours with no complications, representing a significant advancement for hyperbaric rescue.

During the trial, JFD successfully mated with the port and starboard SPHLs to the portable HRF. The entry locks of the SPHLs were pressurised to 305msw, equivalent to the equipment's maximum working depth.

The trials simulated the maximum duration expected to safely transfer divers from the SPHL into the HRF. The mating exercise was performed in a safe, controlled manner using hydraulics to lower and align the SPHL. The Portable HRF mating flanges allow the operator to retain optimum control, maximising the potential of a successful rescue operation.

Giovanni Corbetta, JFD Managing Director, commented:

"Speed is critical in ensuring the safe and successful rescue of divers, and having not only the technical capability but the tried and tested expertise to deploy them in the event of an emergency will safeguard the lives of those operating subsea in some of the most extreme and hazardous conditions. The success of these mating trials is testament to the hard work and dedication of both Boskalis and JFD's personnel in ensuring that there is the best possible safety solution in place, should this service be called upon."

JFD portable HRF systems are easily transportable and are designed to suit a variety of SPHL and HRC configurations. The systems are classed under Lloyd's Register and are fully compliant with IMCA D052 guidelines. JFD has provided support to a number of North Sea diving contractors for many years and has played a leading role in the provision of hyperbaric reception services through our fixed HRF system at our National Hyperbaric Centre.

Events and exhibitions

JFD has a jam packed events and exhibitions schedule planned for 2019.

We will be increasing our presence at a number of key defence exhibitions including UDT in Sweden and DSEI in London. We will also be attending a number of Commercial exhibits around the world.

Keep up to date with our activities by signing up to our newsletter via our website.





Sea trials successfully completed for first Deep Search & Rescue Vehicle

JFD recently completed successful sea trials of the deep search and rescue vehicle (DSRV) for the first of two Third Generation Submarine Rescue Systems being delivered to the Indian Navy.

The DSRV carried out underwater mating with a bottomed submarine at a depth of over 300 feet, followed by a target mating and hatch opening at 45 degrees. On successful mating with the bottomed submarine, JFD and the Indian Navy then carried out a safe transfer of personnel from the submarine to the DSRV.

In addition to the mating and transfer of personnel exercises, the DSRV conducted a record dive which represents the deepest submergence by a 'manned vessel' in Indian waters, as well as Remotely Operated Vehicle (ROV) operations at a depth of over 750 metres and Side Scan Sonar operations at a depth of over 650 metres, all of which represent significant 'firsts' for the Indian Navy.

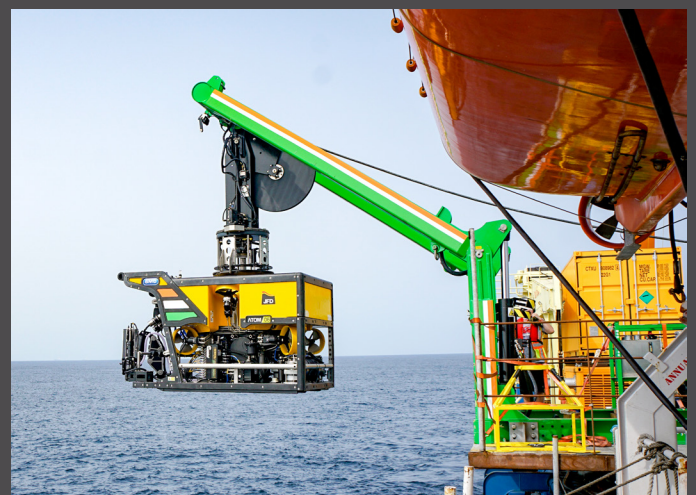
The sea trials proved the ability of the newly inducted DSRV's to undertake rescue operations from a disabled

submarine at sea, providing the Indian Navy with a critical submarine rescue capability.

Having already successfully completed harbour trials earlier this year, the DSRV has now completed a full launch deployment, dive and recovery in open sea as well as an underwater mating exercise, replicating the operating conditions of a real submarine rescue operation.

The completion of open sea trials represents a significant milestone in the ongoing delivery and acceptance of the 3rd Generation Submarine Rescue System, which is grounded in a rigorous trials and testing process that ensures the highest safety standards are upheld.

Under the £193m contract, JFD is delivering two complete flyaway third-generation submarine rescue systems, including launch and recovery systems (LARS) equipment, Transfer Under Pressure (TUP) systems, logistics and support equipment, and a 25-year all inclusive annual maintenance contract.



Transportability trials for third generation submarine rescue system completed

JFD has successfully completed air transportability trials for the first of our two Third Generation submarine rescue systems being delivered to the Indian Navy.

As part of the ongoing delivery of the Third Generation submarine rescue system to the Indian Navy, JFD conducted the comprehensive aircraft loading trials to fully ensure the effective air transportability of the system.

Limiting Time To First Rescue (TTFR) is crucial to conducting a successful submarine rescue operation. This relies on the fast and effective air deployment of the submarine rescue system to the Mother Ship (MOSHIP) that will host the system, enabling the equipment to be on site as quickly as possible.

The trials were performed in conjunction with the Indian Air Force, using the Ilyushin-76 transport aircraft.

The trials proved the functionality of the ground handling equipment provided by JFD successfully integrating with the IL-76, allowing for the safe loading and unloading of all elements of the submarine rescue system.

Giovanni Corbetta commented:

“These trials have proven the compatibility of the newly inducted submarine rescue system with the Indian Air Force IL-76 Transporters, and the rapid response and deployment capability provides in support of disabled submarine rescue operations at sea. The fact that the transportation equipment is an embedded part of the rescue system is unique and ensures the compatibility and availability of the loading equipment aligns with the rest of the rescue system.

The active participation of the Indian Navy’s submarine rescue team throughout the trials is key to conducting safe and efficient mobilisation operations to allow them the ability to respond effectively to an emergency when a submarine is in distress.”

The air transportation trials follow the sea trials of the DSRV for the first of the two third generation systems being delivered to the Indian Navy.





JFD launches enhanced Stealth CDLSE MCM Rebreather

JFD recently announced the launch of the Stealth CDLSE Mk2 and Mk2-ED (Extended Duration), the latest enhanced models of its highly successful Clearance Diver's Life Support Equipment rebreather.

The Stealth CDLSE Mk2 builds upon the existing model, which has been in service and has a proven track record for over 15, has been developed following extensive engagement with the end user to ensure it is fit for purpose to meet current and future operational requirements.

Based on competitive evaluations conducted by independent government evaluation agencies and other end user organisations, Stealth CDLSE is considered one of the most popular MCM-EOD rebreathers in service, with over 600 sets in operation across 11 different countries around the world.

The Stealth CDLSE Mk2 and Mk2-ED represent a new benchmark in state-of-the-art underwater life support technology, increasing levels of diver safety, equipment reliability, maintainability, operational capability and mission

versatility during MCM-EOD (Mine Countermeasures Explosive Ordnance Disposal) operations.

The new Stealth CDLSE Mk2 feature a number of significant enhancement including new and more advanced O2 sensors, which enables the control system to rapidly and accurately respond to changes in life support system status; an improved choice of cylinders; while the Mk2-ED variant contains an extended duration scrubber which provides a significantly increased dive time of six to eight hours, the only set on the market able to provide this extended endurance capability.

The Stealth CDLSE Mk2 can operate at depths of up to 100m, and fully meet the requirements of NATO AEODP-7 Class A (STANAG 2897) without compromise and under both static and dynamic test conditions in all attitudes, as well as for any components that may come into contact with magnetically sensitive ordnance. In line with the continued technological advancements of sea mines, the new Stealth CDLSE Mk2 surpasses the low acoustic test requirements of NATO STANAG AMP15.

STEALTH.

The next generation is coming soon...

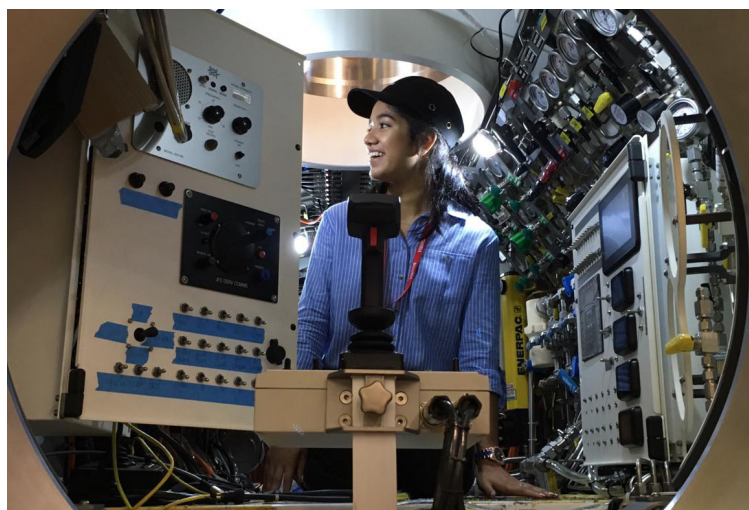
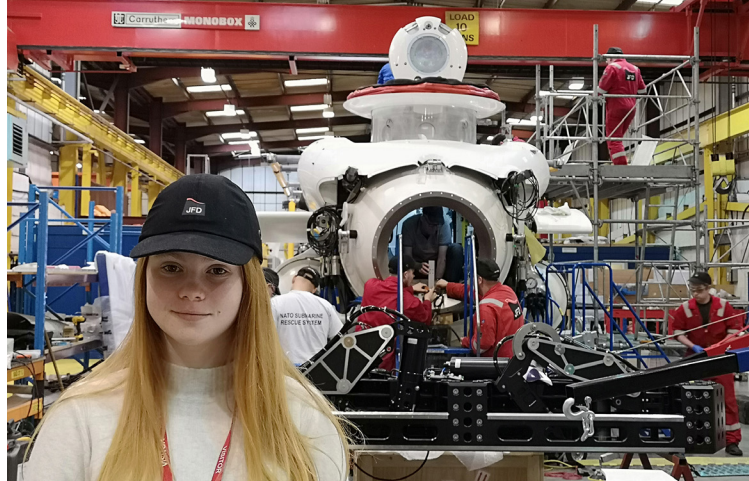
Sign up to the mailing list to be the first to receive announcements regarding our new and improved STEALTH rebreather system: <https://www.jfdglobal.com/contact/signup>

Shadow NAV unveiled

JFD has partnered with the United States (US) Navy's Naval Surface Warfare Centre – Panama City Division (NSWC PCD) to develop of an advanced combat diver navigation module; Shadow NAV, bringing a hands-free underwater navigation capability to the military market for the first time.

Military combat divers frequently conduct underwater navigation missions in hazardous conditions with extremely poor visibility. The Shadow NAV represents a leap forward in capability for combat divers by ensuring they have continual visibility of accurate navigation and depth information.

Danny Gray, JFD Products & Support Director:
“To address these challenges the expert technical team S3D at the NSWC PCD worked to develop a small, low-cost, low-power enhanced navigation capability to significantly improve safety standards for military divers and give them the best possible chance of successfully completing their missions. In bringing this to market, JFD will be making this capability widely available to divers operating across the globe.”



Supporting the next generation of engineers

JFD recently welcomed two students for work experience placements at their facility in Glasgow.

The students are both thinking of embarking on a career in engineering so JFD provided the ideal opportunity for them to gain a better idea of what a career in engineering can involve.

The students were lucky enough to be at the facility during the build of the second Deep Search and Rescue vehicle as part of JFD's contract with the Indian Navy. This allowed them to visualise a project as a whole, they were able to speak with the engineers who have been working on the project since the initial design phases and then see the vehicle as it neared completion in the workshop.

Opportunities across other JFD departments gave the students a wider picture of the company and how we function as a global business. Both students left JFD feeling inspired and said their visit to JFD had cemented their interest in the pursuit of a career in Engineering.

We would like to wish them the very best of luck for whatever path they choose!

